



IMB-130

User Manual

Version 1.0

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

"Perchlorate Material-special handling may apply, see

www.dtsc.ca.gov/hazardouswaste/perchlorate"

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Chapter 1: Introduction

Thank you for purchasing ASRock **IMB-130** motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

In this manual, chapter 1 and 2 contain introduction of the motherboard and step-by-step guide to the hardware installation. Chapter 3 and 4 contain the configuration guide to BIOS setup and information of the Support CD.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRock website without further notice. You may find the latest VGA cards and CPU support lists on ASRock website as well. ASRock website <http://www.asrock.com>

If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.

www.asrock.com/support/index.asp

1.1 Package Contents

ASRock **IMB-130** Motherboard

(Mini-ITX Form Factor: 6.7-in x 6.7-in, 17.0 cm x 17.0 cm)

ASRock **IMB-130** Driver CD

ASRock **IMB-130** Jumper setting instruction

1 x I/O Panel Shield

2 x SATA HDD Cables

1 x SATA Power Cable

2 x COM Port Cables

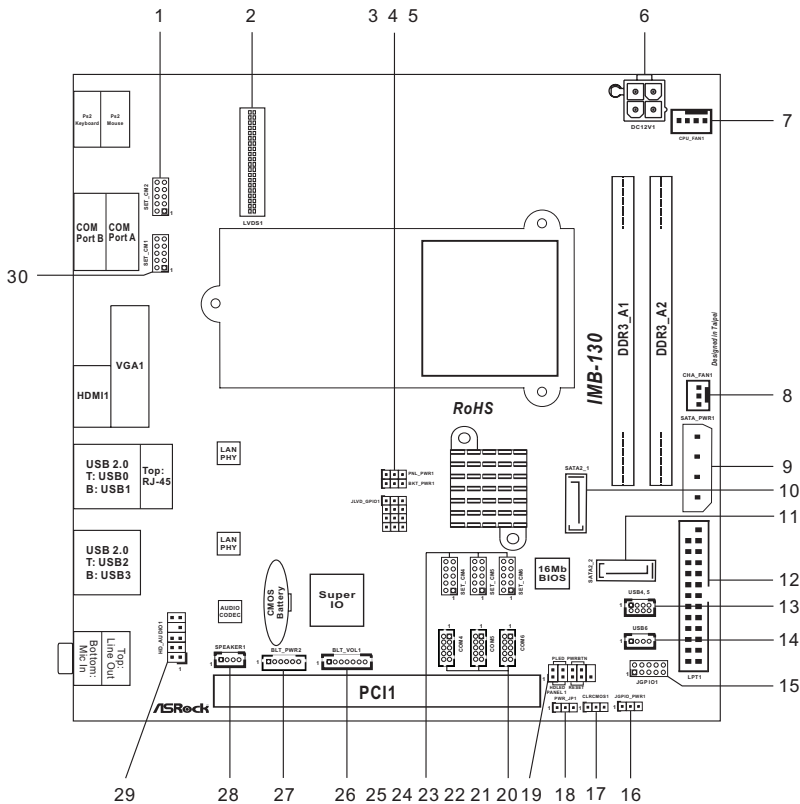
1 x DC-IN Cable

1.2 Specifications

Form Factor	Dimensions	Mini-ITX (6.7-in x 6.7-in)
Processor System	CPU	Intel® Dual-Core Atom™ CedarView Processor D2550/N2600/N2800
	Core Number	2
	Max Speed	- D2550/N2800: 1.86 GHz - N2600: 1.6GHz
	L3 Cache	N/A
	Chipset	NM10
	BIOS	UEFI
Expansion Slot	PCI	1
	Mini-PCIe	1 (Full Size)
	mSATA	0
	PCIe	0
	CFast Card Socket	0
Memory	Technology	Single Channel DDR3 800/1066 MHz SDRAM
	Max.	- D2550/N2800: 4GB - N2600: 2GB
	Socket	- D2550/N2800: 2 x SO-DIMM - N2600: 1 x SO-DIMM
Graphics	Controller	Intel® PowerVR SGX545, Support Directx9 compliant Pixel Shader v3.0 and OGL 3.0
	VRAM	Shared Memory
	VGA	Yes, supports max resolution 1920x1200
	LVDS	Dual Channel 24bits, max resolution 1920x1200
	HDMI	Supports HDMI 1.3a, max resolution 1920x1200
	DVI	No
	Display Port	No
	Multi Display	Yes
Ethernet	Ethernet	10/100/1000 Mbps
	Controller	GbE LAN: 1 x Realtek RTL8111E-VL
	Connector	1 x RJ-45
SATA	Max Data Transfer Rate	SATA2 (3.0Gb/s)

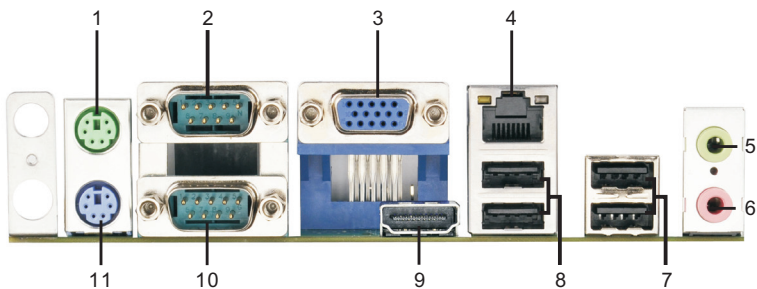
Rear I/O	VGA	1 x D-Sub
	DVI	0
	HDMI	1
	DisplayPort	0
	Ethernet	1
	USB	4 (USB 2.0 compliant)
	Audio	2 (Mic-in, Line-out)
	Serial	1 (RS-232/422/485) + 1 (RS232)
	PS/2	2 (1 x keyboard and 1 x mouse)
Internal Connector	USB	3 (USB 2.0 compliant)
	LVDS/ Inverter	1/1
	VGA	0
	Serial	3 (RS-232)
	SATA	2 x SATA2 (3.0Gb/s)
	mPCIe	1
	Parallel	1
	mSATA	0
	IrDA	0
	GPIO 8-bit	4 x GPI + 4 x GPO
	SATA PWR Output Con	1
	Speaker Header	1
Watchdog Timer	Output	Output from super I/O to drag RESETCON#
	Interval	256 Segments, 0,1,2...255 Sec/Min
Power Requirements	Input PWR	12V DC-In (4-pin ATX PWR Con)
	Power On	AT/ATX Supported -AT : Directly PWR on as power input ready -ATX : Press button to PWR on after power input ready
Environment	Temperature	0°C – 60°C

1.3 Motherboard Layout



-
- 1 : COM Port PWR Setting header (COM Port2)
 - 2 : LVDS Con
 - 3 : Panel VDD PWR Setting
 - 4 : Panel BackLight PWR Setting
 - 5 : Panel resolution selection control
 - 6 : 4-Pin ATX PWR In (+12V)
 - 7 : 4-Pin FAN con (+12V)
 - 8 : 3-Pin FAN con (+12V)
 - 9 : Output Power
 - 10 : SATA2 Connector (SATA2_1)
 - 11 : SATA2 Connector (SATA2_2)
 - 12 : Printer Port Header
 - 13 : Internal USB connectors (USB Port4, 5)
 - 14 : Internal USB connector (USB Port6)
 - 15 : Digital I/O Header
 - 16 : Digital I/O Header PWR setting
 - 17 : Clear CMOS Header
 - 18 : PWR-On mode setting
 - 19 : System Panel Control Header (White)
 - 20 : Internal COM port connector (COM Port6)
 - 21 : Internal COM port connector (COM Port5)
 - 22 : Internal COM port connector (COM Port4)
 - 23 : COM Port PWR Setting header (COM Port6)
 - 24 : COM Port PWR Setting header (COM Port5)
 - 25 : COM Port PWR Setting header (COM Port4)
 - 26 : Panel Brightness and Speaker Volume Control
 - 27 : Panel BackLight Inverter connector
 - 28 : Speaker connector
 - 29 : Front Panel Audio Header (White)
 - 30 : COM Port PWR Setting header (COM Port1)

1.4 I/O Panel



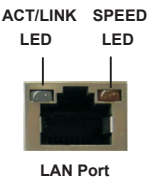
- | | | | |
|-----|-------------------|----|-----------------------|
| 1 | PS/2 Mouse Port | 7 | USB 2.0 Ports (USB23) |
| 2 | Com Port A (COM1) | 8 | USB 2.0 Ports (USB01) |
| 3 | VGA Port (VGA1) | 9 | HDMI Port (HDMI1) |
| * 4 | LAN RJ-45 Port | 10 | Com Port B (COM2) |
| 5 | Line out (Green) | 11 | PS/2 Keyboard Port |
| 6 | Microphone (Pink) | | |

* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

LAN Port LED Indications

Activity/Link LED	
Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED	
Status	Description
Off	10Mbps connection
Orange	100Mbps connection
Green	1Gbps connection



Chapter 2: Installation

This is a Mini-ITX form factor (6.7" x 6.7", 17.0 x 17.0 cm) motherboard. Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.



Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so may cause physical injuries to you and damages to motherboard components.

2.1 Screw Holes

Place screws into the holes to secure the motherboard to the chassis.



Do not over-tighten the screws! Doing so may damage the motherboard.

2.2 Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

1. Unplug the power cord from the wall socket before touching any component.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that comes with the component.



Before you install or remove any component, ensure that the power is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

2.3 Installation of Memory Modules (SO-DIMM)

IMB-130 motherboard provides two 204-pin DDR3 (Double Data Rate 3) SO-DIMM slots.



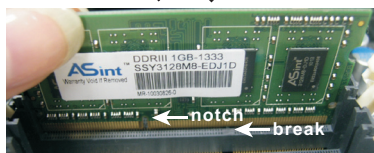
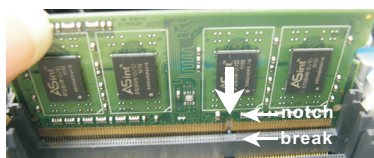
1. It is not allowed to install a DDR or DDR2 memory module into a DDR3 slot; otherwise, this motherboard and SO-DIMM may be damaged.
2. Please install the memory module from DDR3_A2 slot for the first priority.

Installing a SO-DIMM



Please make sure to disconnect the power supply before adding or removing SO-DIMMs or the system components.

- Step 1. Unlock a SO-DIMM slot by pressing the retaining clips outward.
- Step 2. Align a SO-DIMM on the slot such that the notch on the SO-DIMM matches the break on the slot.



The SO-DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the SO-DIMM if you force the SO-DIMM into the slot in the incorrect orientation.

- Step 3. Firmly insert the SO-DIMM into the slot until the retaining clips at both ends fully snap back in place and the SO-DIMM is properly seated.

2.4 Expansion Slots (PCI and mini-PCIE Slots)

There is 1 PCI slot and 1 mini-PCIE slot on this motherboard.

PCI slot: The PCI slot is used to install an expansion card that has 32-bit PCI interface.

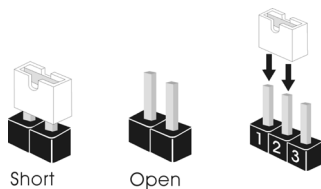
The mini-PCIE slot is used for PCI Express mini cards.

Installing an expansion card

- Step 1. Before installing the expansion card, please make sure that the power supply is switched off or the power cord is unplugged. Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.
- Step 2. Remove the system unit cover (if your motherboard is already installed in a chassis).
- Step 3. Remove the bracket facing the slot that you intend to use. Keep the screws for later use.
- Step 4. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
- Step 5. Fasten the card to the chassis with screws.
- Step 6. Replace the system cover.

2.5 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is “Short”. If no jumper cap is placed on pins, the jumper is “Open”. The illustration shows a 3-pin jumper whose pin1 and pin2 are “Short” when jumper cap is placed on these 2 pins.



Clear CMOS Jumper

(CLRCMOS1)

(see p.8, No. 17)

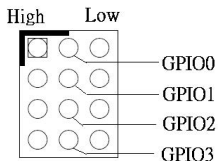


Note: CLRCMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, user default profile and MAC address will be cleared only if the CMOS battery is removed.

Panel Resolution Selection

(12-pin JLVD_GPIO1)

(see p.8 No. 5)



Reserved.

Default set by BIOS.

High + GPIOx = 1

Low + GPIOx = 0

Note: If you want to use BIOS to set Panel type, then set all GPIO[3:0]= “1111”.

If you want to use jumpers to set Panel type, select “Set by Jumper” in BIOS.

GPIO [3:0]	Selection Name In BIOS	HA (Pixel)	VA (Line)	CD (bit)	Port	BackLight Type	Invert PWM output	Remark
0000	1366x768/18-bit/1-ch/LED	1366	768	6	Single	LED	No	
0001	800x600/18-bit/1-ch/CCFL	800	600	6	Single	CCFL	Yes	
0010	1024x768/24-bit/1-ch/CCFL	1024	768	8	Single	CCFL	Yes	
0011	1280x1024/24-bit/2-ch/CCFL	1280	1024	8	Dual	CCFL	Yes	
0100	1366x768/24-bit/1-ch/CCFL	1366	768	8	Single	CCFL	Yes	
0101	1440x900/24-bit/2-ch/CCFL	1440	900	8	Dual	CCFL	Yes	
0110	1024x600/18-bit/1-ch/LED	1024	600	6	Single	LED	No	
0111	1440x900/24-bit/2-ch/LED	1440	900	8	Dual	LED	No	Default Setting
1000	1280x1024/24-bit/2-ch/LED	1280	1024	8	Dual	LED	No	
1001	1024x768/24-bit/1-ch/LED	1024	768	8	Single	LED	No	
1010	1600x900/18-bit/2-ch/LED	1600	900	6	Dual	LED	No	
1011	1366x768/24-bit/1-ch/LED	1366	768	8	Single	LED	No	
1100	1920x1080/24-bit/2-ch/LED	1920	1080	8	Dual	LED	No	
1101	800x600/24-bit/1-ch/LED	800	600	8	Single	LED	No	
1110	640x480/24-bit/1-ch/LED	640	480	8	Single	LED	No	
1111	1280x800/18-bit/1-ch/LED	1280	800	6	Single	LED	No	

COM Port PWR Setting Headers

(10-pin SET_CM1)

(see p.8 No. 30)

(10-pin SET_CM2)

(see p.8 No. 1)

(10-pin SET_CM4)

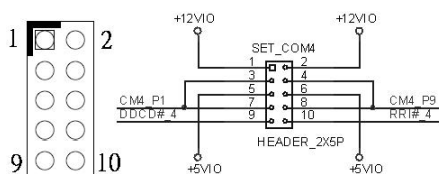
(see p.8 No. 25)

(10-pin SET_CM5)

(see p.8 No. 24)

(10-pin SET_CM6)

(see p.8 No. 23)



1-3: +12V

3-5: +5V

7-9: COM port signal Data Carrier Detect

2-4: +12V

4-6: +5V

8-10: COM port signal Ring Indicator

Panel Power Selection

(3-pin PNL_PWR1)

(see p.8, No. 3)



1-2 : +3V

2-3 : +5V

Backlight Power Selection

(3-pin BKT_PWR1)

(see p.8, No. 4)



1-2 : +5V

2-3 : +12V

ATX/AT Mode Selection

(3-pin PWR_JP1)

(see p.8, No. 18)



1-2 : AT Mode

2-3 : ATX Mode

Digital Input/Output Power Selection

(3-pin JGPIO_PWR1)

(see p.8, No. 16)



1-2 : +12V

2-3 : +5V

2.6 Onboard Headers and Connectors

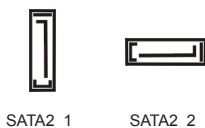


Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

SATA2 Connectors

(SATA2_1: see p.8, No. 10)

(SATA2_2: see p.8, No. 11)

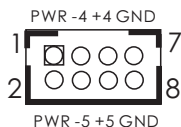


These two Serial ATA2 (SATA2) connectors support SATA data cables for internal storage devices. The current SATA2 interface allows up to 3.0 Gb/s data transfer rate.

USB 2.0 Ports

(4-pin USB4,5)

(see p.8 No. 13)



Besides four default USB 2.0 ports on the I/O panel, there are three USB 2.0 ports on this motherboard.

(4-pin USB6)

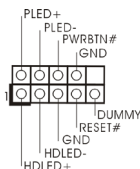
(see p.8 No. 14)



System Panel Header

(9-pin PANEL1)

(see p.8 No. 19)



This header accommodates several system front panel functions.



Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.

PWRBTN (Power Switch):

Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

RESET (Reset Switch):

Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

PLED (System Power LED):

Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1 sleep state. The LED is off when the system is in S3/S4 sleep state or powered off (S5).

HDLED (Hard Drive Activity LED):

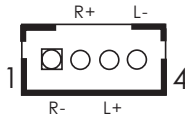
Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

Speaker Connector

(4-pin SPEAKER 1)

(see p.8 No. 28)



1: Speaker R-

2: Speaker R+

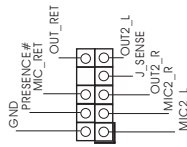
3: Speaker L+

4: Speaker L-

Front Panel Audio Header

(9-pin HD_AUDIO1)

(see p.8 No. 29)



This is an interface for front panel audio cable that allows convenient connection and control of audio devices.



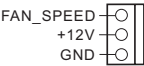
1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instruction in our manual and chassis manual to install your system.
2. If you use AC'97 audio panel, please install it to the front panel audio header as below:
 - A. Connect Mic_IN (MIC) to MIC2_L.
 - B. Connect Audio_R (RIN) to OUT2_R and Audio_L (LIN) to OUT2_L.
 - C. Connect Ground (GND) to Ground (GND).
 - D. MIC_RET and OUT_RET are for HD audio panel only. You don't need to connect them for AC'97 audio panel.
 - E. To activate the front mic.

For Windows® XP / XP 64-bit OS:
Select "Mixer". Select "Recorder". Then click "FrontMic".

For Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit OS:
Go to the "FrontMic" Tab in the Realtek Control panel. Adjust "Recording Volume".

Chassis Fan Connector

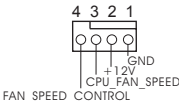
(4-pin CHA_FAN1)
(see p.8 No. 8)



Please connect the fan cable to the fan connector and match the black wire to the ground pin.

CPU Fan Connector

(4-pin CPU_FAN1)
(see p.8 No. 7)



Please connect the CPU fan cable to the connector and match the black wire to the ground pin.



Though this motherboard provides 4-Pin CPU fan (Quiet Fan) support, the 3-Pin CPU fan still can work successfully even without the fan speed control function. If you plan to connect the 3-Pin CPU fan to the CPU fan connector on this motherboard, please connect it to Pin 1-3.

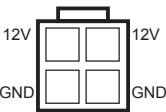
Pin 1-3 Connected



3-Pin Fan Installation

DC 12V Power Connector

(4-pin DC12V1)
(see p.8 No. 6)



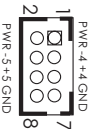
Please connect a DC 12V power supply to this connector.

COM Port Header

(10-pin COM4)
(see p.8 No. 22)

(10-pin COM5)
(see p.8 No. 21)

(10-pin COM6)
(see p.8 No. 20)

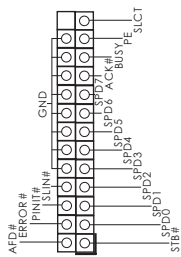


PIN	RS232	RS422	RS485
1	DCD, Data carrier detect	TX-	RTX-
2	RXD, Receive data	RX+	N/A
3	TXD, Transmit data	TX+	RTX+
4	DTR, Data terminal ready	RX-	N/A
5	GND	GND	GND

Printer Port Header

(25-pin LPT1)

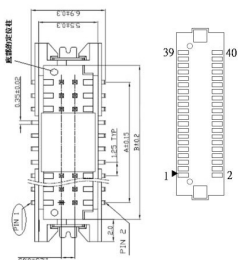
(see p.8 No. 12)



LVDS Con

(40-pin LVDS1)

(see p.8 No. 2)



Pin #	Signal Name	Pin #	Signal Name
1	VDD PWR	2	VDD PWR
3	EDID PWR (3V)	4	EDID_CLK
5	EDID_DAT	6	RXINO0-
7	RXINO0+	8	GND
9	RXINO1-	10	RXINO1+
11	GND	12	RXINO2-
13	RXINO2+	14	GND
15	RXINO3-	16	RXINO3+
17	GND	18	RXOCLKIN-
19	RXOCLKIN+	20	GND
21	RXINE0-	22	RXINE0+
23	GND	24	RXINE1-
25	RXINE1+	26	GND
27	RXINE2-	28	RXINE2+
29	GND	30	RXINE3-
31	RXINE3+	32	GND
33	RXECLKIN-	34	RXECLKIN+
35	GND	36	BackLight EN
37	BackLight PWM	38	BackLight PWR
39	BackLight PWR	40	BackLight PWR

Output Power

(4-pin SATA_PWR1)

(see p.8 No. 9)



1: +5V

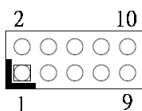
2, 3: GND

4: +12V

Digital I/O Header

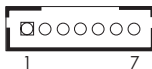
(10-pin JGPIO1)

(see p.8 No. 15)



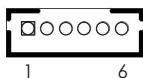
Pin #	Signal Name	Pin #	Signal Name
1	GP24	2	GP20
3	GP25	4	GP21
5	GP26	6	GP22
7	GP27	8	GP23
9	PWR	10	GND

Panel Brightness and
Speaker Volume Control
(7-pin BLT_VOL1)
(see p.8 No. 26)



1: Volume_UP
2: Volume_DOWN
3: PANEL PWR Down
4: Panel BackLight UP
5: Panel BackLight Down
6: GND
7: GND

Panel BackLight Inverter
connector
(6-pin BLT_PWR2)
(see p.8 No. 27)



1,2: GND
3: Panel Backlight Control
4: Panel Backlight Enable
5,6: Panel Backlight Power

2.7 Serial ATA (SATA) / Serial ATA2 (SATA2) Hard Disks Installation

This motherboard adopts Intel® NM10 chipset that supports Serial ATA (SATA) / Serial ATA2 (SATA2) hard disks. You may install SATA / SATA2 hard disks on this motherboard for internal storage devices. This section will guide you to install the SATA / SATA2 hard disks.

- STEP 1: Install the SATA / SATA2 hard disks into the drive bays of your chassis.
STEP 2: Connect the SATA power cable to the SATA / SATA2 hard disk.
STEP 3: Connect one end of the SATA data cable to the motherboard's SATA2 connector.
STEP 4: Connect the other end of the SATA data cable to the SATA / SATA2 hard disk.

2.8 Hot Plug Function for SATA / SATA2 HDDs

This motherboard supports Hot Plug function for SATA / SATA2 in AHCI mode. Intel® NM10 chipset provides hardware support for Advanced Host controller Interface (AHCI), a new programming interface for SATA host controllers developed through a joint industry effort.



NOTE

What is Hot Plug Function?

If the SATA / SATA2 HDDs are NOT set for RAID configuration, it is called "Hot Plug" for the action to insert and remove the SATA / SATA2 HDDs while the system is still power-on and in working condition.
However, please note that it cannot perform Hot Plug if the OS has been installed into the SATA / SATA2 HDD.

2.9 Driver Installation Guide

To install the drivers to your system, please insert the support CD to your optical drive first. Then, the drivers compatible to your system can be auto-detected and listed on the support CD driver page. Please follow the order from top to bottom to install those required drivers. Therefore, the drivers you install can work properly.

Chapter 3: UEFI SETUP UTILITY

3.1 Introduction

This section explains how to use the UEFI SETUP UTILITY to configure your system. The UEFI chip on the motherboard stores the UEFI SETUP UTILITY. You may run the UEFI SETUP UTILITY when you start up the computer. Please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter the UEFI SETUP UTILITY, otherwise, POST will continue with its test routines.

If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.



Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

3.1.1 UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

Main	To set up the system time/date information
OC Tweaker	To set up overclocking features
Advanced	To set up the advanced UEFI features
H/W Monitor	To display current hardware status
Boot	To set up the default system device to locate and load the Operating System
Security	To set up the security features
Exit	To exit the current screen or the UEFI SETUP UTILITY

Use < ← > key or < → > key to choose among the selections on the menu bar, and then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

3.1.2 Navigation Keys

Please check the following table for the function description of each navigation key.

Navigation Key(s)	Function Description
← / →	Moves cursor left or right to select Screens
↑ / ↓	Moves cursor up or down to select items
+ / -	To change option for the selected items
<Enter>	To bring up the selected screen
<F1>	To display the General Help Screen
<F7>	Discard changes
<F9>	To load optimal default values for all the settings
<F10>	To save changes and exit the UEFI SETUP UTILITY
<F12>	Print screen
<ESC>	To jump to the Exit Screen or exit the current screen

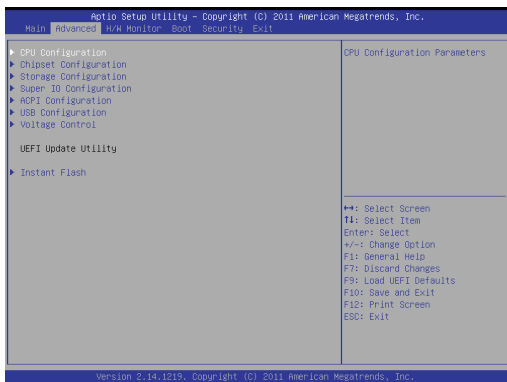
3.2 Main Screen

When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.



3.3 Advanced Screen

In this section, you may set the configurations for the following items: CPU Configuration, Chipset Configuration, Storage Configuration, Super IO Configuration, ACPI Configuration, USB Configuration and Voltage Configuration.

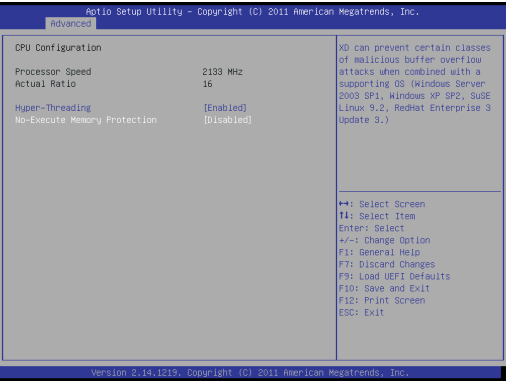


Setting wrong values in this section may cause the system to malfunction.

Instant Flash

Instant Flash is a UEFI flash utility embedded in Flash ROM. This convenient UEFI update tool allows you to update system UEFI without entering operating systems first like MS-DOS or Windows®. Just launch this tool and save the new UEFI file to your USB flash drive, floppy disk or hard drive, then you can update your UEFI only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system. If you execute Instant Flash utility, the utility will show the UEFI files and their respective information. Select the proper UEFI file to update your UEFI, and reboot your system after UEFI update process completes.

3.3.1 CPU Configuration



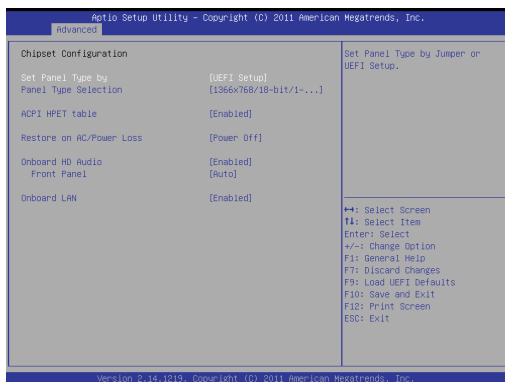
Intel Hyper Threading Technology

To enable this feature, it requires a computer system with an Intel processor that supports Hyper-Threading technology and an operating system that includes optimization for this technology, such as Microsoft® Windows® 7. Set to [Enabled] if using Microsoft® Windows® 7.

No-Execute Memory Protection

No-Execution (NX) Memory Protection Technology is an enhancement to the IA-32 Intel Architecture. An IA-32 processor with “No Execute (NX) Memory Protection” can prevent data pages from being used by malicious software to execute code.

3.3.2 Chipset Configuration



Set Panel Type by

Use this to configure Set Panel Type. The default value is [UEFI Setup].

Panel Type Selection

Use this to select panel type. The default value is [1366x768/18-bit/1-ch/LED].

ACPI HPET Table

Use this item to enable or disable ACPI HPET Table. The default value is [Enabled]. Please set this option to [Enabled] if you plan to use this motherboard to submit Windows® certification.

Restore on AC/Power Loss

This allows you to set the power state after an unexpected AC/power loss. If [Power Off] is selected, the AC/power remains off when the power recovers. If [Power On] is selected, the AC/power resumes and the system starts to boot up when the power recovers.

Onboard HD Audio

Select [Auto], [Enabled] or [Disabled] for the onboard HD Audio feature. If you select [Auto], the onboard HD Audio will be disabled when PCI Sound Card is plugged.

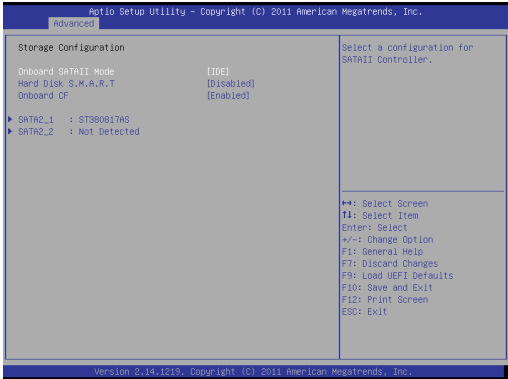
Front Panel

Select [Auto] or [Disabled] for the onboard HD Audio Front Panel.

Onboard LAN

This allows you to enable or disable the “Onboard LAN” feature.

3.3.3 Storage Configuration



Onboard SATAII Mode

Use this to select SATA2 mode. Configuration options: [IDE Mode], [AHCI Mode] and [Disabled]. The default value is [IDE Mode].

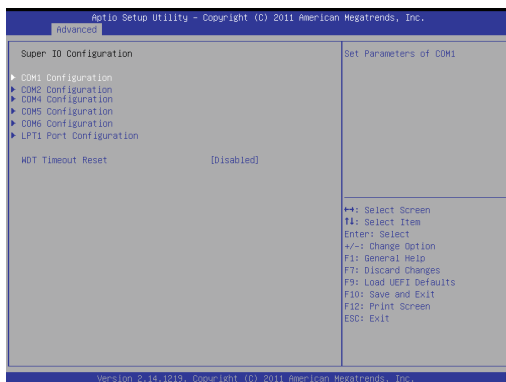


AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

Hard Disk S.M.A.R.T.

Use this item to enable or disable the S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) feature. Configuration options: [Disabled] and [Enabled].

3.3.4 Super IO Configuration



COM1 Configuration

Use this to set parameters of COM1.

COM2 Configuration

Use this to set parameters of COM2.

COM4 Configuration

Use this to set parameters of COM4.

COM5 Configuration

Use this to set parameters of COM5.

COM6 Configuration

Use this to set parameters of COM6.

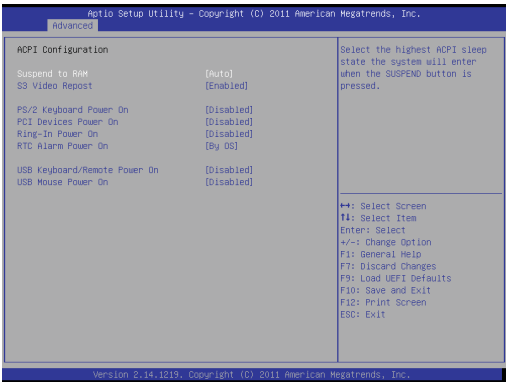
LPT1 Port Configuration

Use this set parameters of the onboard parallel port.

WDT Timeout Reset

This allows users to enable/disable the Watch Dog Timer timeout to reset system. The default value is [Disabled].

3.3.5 ACPI Configuration



Suspend to RAM

Use this item to select whether to auto-detect or disable the Suspend-to-RAM feature. Select [Auto] will enable this feature if the OS supports it.

S3 Video Repost

Use this to enable/disable S3 Video Repost. The default value is [Enabled].

PS/2 Keyboard Power On

Use this item to enable or disable PS/2 keyboard to turn on the system from the power-soft-off mode.

PCI Devices Power On

Use this item to enable or disable PCI devices to turn on the system from the power-soft-off mode.

Ring-In Power On

Use this item to enable or disable Ring-In signals to turn on the system from the power-soft-off mode.

RTC Alarm Power On

Use this item to enable or disable RTC (Real Time Clock) to power on the system.

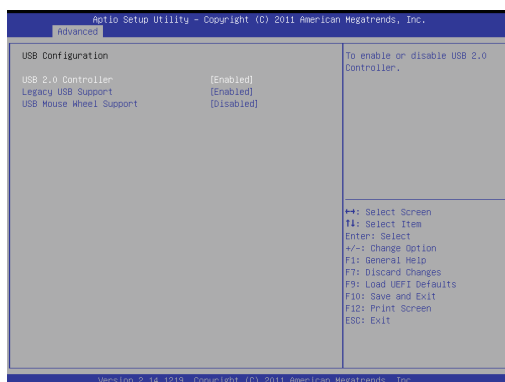
USB Keyboard/Remote Power On

Use this item to enable or disable USB Keyboard/Remote to power on the system.

USB Mouse Power On

Use this item to enable or disable USB Mouse to power on the system.

3.3.6 USB Configuration



USB 2.0 Controller

Use this item to enable or disable the use of USB 2.0 controller.

Legacy USB Support

Use this option to select legacy support for USB devices. There are four configuration options: [Enabled], [Auto], [Disabled] and [UEFI Setup Only]. The default value is [Enabled]. Please refer to below descriptions for the details of these four options:

[Enabled] - Enables support for legacy USB.

[Auto] - Enables legacy support if USB devices are connected.

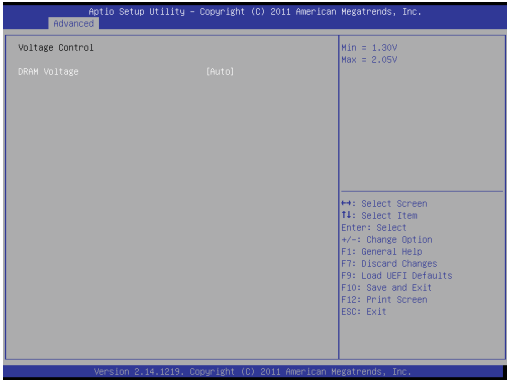
[Disabled] - USB devices are not allowed to use under legacy OS and UEFI setup when [Disabled] is selected. If you have USB compatibility issue, it is recommended to select [Disabled] to enter OS.

[UEFI Setup Only] - USB devices are allowed to use only under UEFI setup and Windows / Linux OS.

USB Mouse Wheel Support

Use this option to enable or disable USB Mouse Wheel Support. The default value is [Disabled].

3.3.7 Voltage Configuration

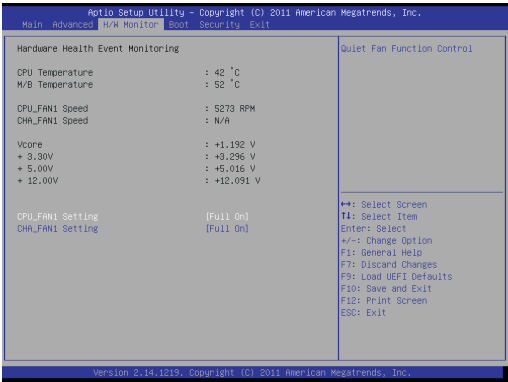


DRAM Voltage

Use this to select DRAM Voltage. The default value is [Auto].

3.4 Hardware Health Event Monitoring Screen

In this section, it allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, CPU fan speed, chassis fan speed, and the critical voltage.



CPU_FAN1 Setting

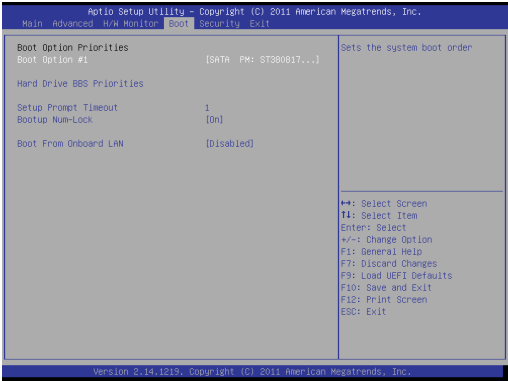
This allows you to set CPU_FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

CHA_FAN1 Setting

This allows you to set CHA_FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

3.5 Boot Screen

In this section, it will display the available devices on your system for you to configure the boot settings and the boot priority.



Setup Prompt Timeout

This shows the number of seconds to wait for setup activation key. 65535(0XFFFF) means indefinite waiting.

Bootup Num-Lock

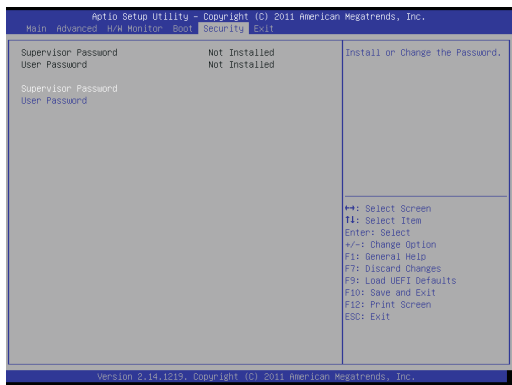
If this item is set to [On], it will automatically activate the Numeric Lock function after boot-up.

Boot From Onboard LAN

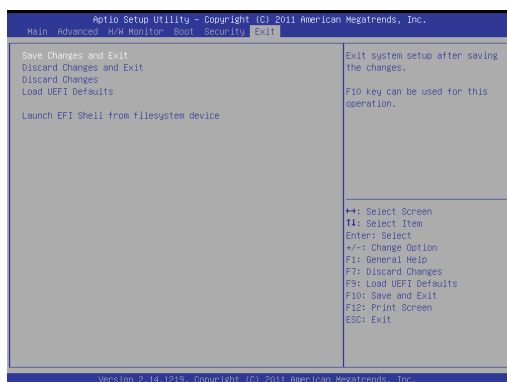
Use this item to enable or disable the Boot From Onboard LAN feature.

3.6 Security Screen

In this section, you may set, change or clear the supervisor/user password for the system.



3.7 Exit Screen



Save Changes and Exit

When you select this option, it will pop-out the following message, "Save configuration changes and exit setup?" Select [OK] to save the changes and exit the UEFI SETUP UTILITY.

Discard Changes and Exit

When you select this option, it will pop-out the following message, "Discard changes and exit setup?" Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

Discard Changes

When you select this option, it will pop-out the following message, "Discard changes?" Select [OK] to discard all changes.

Load UEFI Defaults

Load UEFI default values for all the setup questions. F9 key can be used for this operation.

Launch EFI Shell from filesystem device

Attempts to Launch EFI Shell application (Shell64.efi) from one of the available filesystem devices.

Chapter 4: Software Support

4.1 Install Operating System

This motherboard supports Microsoft® Windows® operating systems: 7 32-bit. Because motherboard settings and hardware options vary, use the setup procedures in this chapter for general reference only. Refer to your OS documentation for more information.

4.2 Support CD Information

The Support CD that came with the motherboard contains necessary drivers and useful utilities that enhance the motherboard's features.

4.2.1 Running The Support CD

To begin using the support CD, insert the CD into your CD-ROM drive. The CD automatically displays the Main Menu if "AUTORUN" is enabled in your computer. If the Main Menu did not appear automatically, locate and double click on the file "ASSETUP.EXE" from the BIN folder in the Support CD to display the menus.

4.2.2 Drivers Menu

The Drivers Menu shows the available device's drivers if the system detects installed devices. Please install the necessary drivers to activate the devices.

4.2.3 Utilities Menu

The Utilities Menu shows the application software that the motherboard supports. Click on a specific item then follow the installation wizard to install it.

4.2.4 Contact Information

If you need to contact ASRock or want to know more about ASRock, you're welcome to visit ASRock's website at <http://www.asrock.com>; or you may contact your dealer for further information.